Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	**Applicant(s)**
Office Action Summary	09/192,014	KLOTZ ET AL.
	Examiner	**Art Unit**
	William L. Bashore	2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _21 April 2003_.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-6,11,14 and 15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-6,11,14 and 15_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. This action is responsive to communications: Request for Reconsideration (hereinafter the Request) filed 4/21/2003, to the original application filed **11/13/1998**. IDS filed 11/13/1998 (paper #4), and 7/9/2001 (paper #5).

2. Claims 1-6 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Irons, in view of Xerox.

3. Claims 11, 14-15 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Irons, in view of Barton.

4. Claims 1-6, 11, 14-15 are pending. Claims 1, 11, 14-15 are independent claims.

Claim Rejections - 35 USC § 103

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-6, are rejected under 35 U.S.C. 103(a) as being unpatentable over Irons, U.S. Patent No. 6,192,165, filed December 30, 1997, and issued February 20, 2001, in view of *Xerox touts DataGlyphs for paper data* (hereinafter Xerox), Seybold Report on Desktop Publishing, Vol. 9, No. 5, copyright 1996, pp.1-3, downloaded on 12/6/2001 from <url: http://www.seyboldseminars.com/seybold_report/reports/D0905001.HTM>.**

In regard to independent claim 1, Irons teaches a scanner for scanning a document along with an affixed label (Irons column 8 lines 1-10; compare with claim 1 *"A method for processing....comprising the steps of"*, and *"scanning the document to produce an image representative of the document"*).

Irons teaches subsequent to scanning, locating and decoding the digitized label from said document, said label associated with a user ID (Irons column 8 lines 4-10, column 11 lines 30-36, Figure 5; compare with claim 1 *"locating the user interface tag in the image"*, *"decoding data represented in the user interface tag"*, and *"...a user identity..."*).

Irons teaches storing said number as an index (linked) to a database for facilitating later retrieval of a document onto an output device, as well as a document invoice indicative of a service (Irons column 7 lines 55-61, Figure 8, 9). Irons does not specifically teach performing a service associated with document data. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Irons, because Irons teaches that the machine readable portion of a label may contain additional information, such as information on document disposition (Irons column 11 lines 22-26; compare with claim 1 *"associating the data with a service....performing the specified service"*), suggesting a performed service, and providing the advantage of disposition associated with the invoices of Irons Figure 8, 9.

Irons teaches a scanned office form (an invoice) with a machine readable code in the upper right corner of said invoice, said code can contain additional information regarding document disposition (see above). Said invoice also contains images indicating two handwritten signatures, as well as a bulleted area indicating type of payment in the lower left portion of said invoice (Irons Figure 9 item 920). Irons does not specifically teach performing a service <u>on the image</u> of the scanned form. However, Xerox teaches DataGlyphs, which can encode and read machine readable information (including executable commands) applied to office forms, using SmartPaper Controls (Xerox page 2 section "SmartPaper Controls"). SmartPaper can perform the service of electronically verifying whether a form has been signed (Xerox

page 2 section "Signature regions"). Since multiple signatures are typically applied on said invoice at different times (i.e. supervisors and sales people in different buildings) , the DataGlyphs are updated accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Xerox's signature verification within Iron's machine readable code, providing Irons the benefit of signature verification, since verifying the presence of handwritten signatures has a necessary bearing on the disposition of an invoice form (compare with claim 1 *"performing the specified service on the image representative of the document."*).

In regard to dependent claims 2-3, Irons teaches identification of a machine readable ID image bar code label (Irons Figure 4; compare with claim 2 *"identifying a connected component in the image"*) Irons teaches the use of high density symbologies for encoding an image file (Irons column 11 lines 18-23). Irons does not specifically teach finding extreme points, determination of a diagonal length, and a rectangle including said points, as well determination of a lattice of glyphs, a seed glyph, identifying a rotation, and converting said glyphs to binary data. However, Xerox teaches DataGlyph coding, which comprises blocks (rectangles) of data represented as diagonal lines, the analyzed slope of which (either left or right) are indicative of binary data within an analyzed block. The data is grouped into blocks to which framing is added. In addition, said coding is embedded in an error-correcting code utilizing redundant bits, and encoded bytes reordered in a psuedorandom way (requiring a seed) (Xerox pages 1-3, especially bottom of page 1 to top of page 2; compare with claims 2-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Xerox to Irons, because of Xerox's taught advantage of DataGlyphs, providing the labels of Irons a symbology especially designed for the rigors of a hardcopy environment (Xerox page 2, near top).

In regard to dependent claim 4, Irons teaches extracting a user identity code from an analyzed label, said code associated with a database for additional information (Irons column 8 lines 5-14, column 11 lines 29-40, Figure 5).

In regard to dependent claims 5-6, Irons teaches storing a code as an index (linked) to a database for facilitating later retrieval of a document onto an output device, as well as a document invoice indicative of a service (Irons column 7 lines 55-61, Figure 8, 9). Irons does not specifically teach extracting a service code. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Irons, because Irons teaches that the machine readable portion of a label may contain additional information, such as information on document disposition (Irons column 11 lines 22-26; compare with claims 5-6, suggesting a service (or invoice) code associated with said invoice, and providing the advantage of an index code associated with the invoices of Irons Figures 8, 9.

7.   **Claims 11, 14-15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Irons, U.S. Patent No. 6,192,165, filed December 30, 1997, issued February 20, 2001, in view of Barton et al. (hereinafter Barton), U.S. Patent No. 5,998,752, filed March 16, 1998, issued December 7, 1999.**

In regard to dependent claim 11, Irons teaches printing a document label comprising a machine-readable data code, said label is associated with, and affixed to a hardcopy document prior to scanning of said document, said code incorporating a user identity code (Irons column 11 lines 4-15, 27-41, column 12 lines 41-60; compare with claim 11 *"A user interface tag....code representative of a user's identity"*).

Irons does not specifically teach a service code for specifying a service to be performed on a hardcopy document. However, Barton teaches a mail processing system including sorting stations for various pieces of mail. The sorting of a mail item is dependent upon the intended address of a mail item, as well as class of service, etc. (Barton column 1 lines 5-8, 59-62, column 2 lines 1-10). A bar code can be applied to a mail item, uniquely identifying said item (Barton column 2 lines 11-14, 55-58). It is to be noted that a bar code can be applied to a post card, since a post card is a known form of a hardcopy document, as well as a known form of mail item. Barton teaches printing a routing code (a machine-readable form of the destination address) onto said mail item (Barton column 4 lines 64-67, column 5 lines 1-5). The routing code specifies a service to be performed on a mail item (i.e. a post card), since the routing code is used by the sorting system (and by a post office in general), to direct said mail item to a particular destination (compare with claim 11 *"a service code specifying a service to be performed on said hardcopy document."*). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Barton's routing code to Irons bar code information, providing Irons the capability of mailing a printed copy of an invoice to a destination (Irons Figure 9) using a routing code.

In regard to independent claim 14, Irons teaches creating user interface tags associated with documents (Irons Abstract; compare with claim 14 *"An apparatus for....comprising:"*).

Irons teaches receiving information (user ID) reflective of a user, said user ID used for creating a unique document number (identity code) (Irons column 11 lines 27-42, Figure 5; compare with claim 14 *"an identity processor adapted to receive user information and create an identity code"*).

Irons teaches storing said number as an index to a database (Irons column 7 lines 50-60; compare with claim 14 *"a user information database....with the identity code"*).

Irons teaches printing a user interface sticker comprising a machine readable identity code (Irons column 12 lines 41-50, Figure 4; compare with claim 14 "*an output device capable of printing a tag bearing....representative of the identity code*").

Irons does not specifically teach a service code for specifying a service to be performed on a hardcopy document. However, Barton teaches a mail processing system including sorting stations for various pieces of mail. The sorting of a mail item is dependent upon the intended address of a mail item, as well as class of service, etc. (Barton column 1 lines 5-8, 59-62, column 2 lines 1-10). A bar code can be applied to a mail item, uniquely identifying said item (Barton column 2 lines 11-14, 55-58). It is to be noted that a bar code can be applied to a post card, since a post card is a known form of a hardcopy document, as well as a known form of mail item. Barton teaches printing a routing code (a machine-readable form of the destination address) onto said mail item (Barton column 4 lines 64-67, column 5 lines 1-5). The routing code specifies a service to be performed on a mail item (i.e. a post card), since the routing code is used by the sorting system (and by a post office in general), to direct said mail item to a particular destination (compare with claim 14 "*a service to be performed on a document to which said user interface tag is affixed.*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Barton's routing code to Irons bar code information, providing Irons the capability of mailing a printed copy of an invoice to a destination (Irons Figure 9) using a routing code.

In regard to independent claim 15, Irons teaches a scanner for scanning a document along with an affixed label (Irons column 8 lines 1-10; compare with claim 15 "*a scanner adapted....of the document*").

Irons teaches subsequent to scanning, identifying an decoding the digitized label from said document (Irons column 8 lines 4-10; compare with claim 15 "*an action processor adapted to identify....in the user interface tag*").

Irons does not specifically teach a service code for specifying a service to be performed on a

hardcopy document. However, Barton teaches a mail processing system including sorting stations for

various pieces of mail. The sorting of a mail item is dependent upon the intended address of a mail item,

as well as class of service, etc. (Barton column 1 lines 5-8, 59-62, column 2 lines 1-10). A bar code can be

applied to a mail item, uniquely identifying said item (Barton column 2 lines 11-14, 55-58). It is to be

noted that a bar code can be applied to a post card, since a post card is a known form of a hardcopy

document, as well as a known form of mail item. Barton teaches printing a routing code (a machine-

readable form of the destination address) onto said mail item (Barton column 4 lines 64-67, column 5

lines 1-5). The routing code specifies a service to be performed on a mail item (i.e. a post card), since the

routing code is used by the sorting system (and by a post office in general), to direct said mail item to a

particular destination (compare with claim 15 *"said information including information indicating a*

service to be performed on said hardcopy document."). It would have been obvious to one of ordinary

skill in the art at the time of the invention to apply Barton's routing code to Irons bar code information,

providing Irons the capability of mailing a printed copy of an invoice to a destination (Irons Figure 9)

using a routing code.

Irons teaches storing said number as an index (linked) to a database for facilitating later retrieval

of a document onto an output device (Irons column 7 lines 55-61; compare with claim 15 *"a device*

operated by the....represented in the user interface tag.").

Response to Arguments

8.   Applicant's arguments filed 4/21/2003 have been fully and carefully considered but they are not

persuasive.

Applicant argues on page 3 (near top) of the Request that Irons does not teach or suggest a need

for determining the disposition of a form. The examiner respectfully notes that Irons teaches a document

invoice (Irons column 7 lines 55-61, Figure 8, 9). Although Irons does not specifically disclose

performing a service associated with document data, Irons teaches that the machine readable portion of a

label may contain additional information, such as information on document disposition (Irons column 11

lines 22-26). Although (as Applicant suggests), disposition can mean document storage, it is noted that

since Irons does not specify a type of document disposition, the contract invoice of Irons Figure 9

suggests to the skilled artisan that he/she is not necessarily limited to Applicant's interpretation of

disposition. Within the scope of the art , the invoice of Figure 9 suggests disposition can be interpreted as

resolution (i.e. are all previous customer debts paid?, all previous problems solved?, etc., issues effecting

storage). As the Figure 9 invoice is examined, a service is performed on the document by ascertaining its

disposition, which can have a bearing on the present course of action.

Applicant argues on page 3 of the Request that Irons would derive no benefit from Xerox's

signature verification. While a user (a customer) provides information (i.e. a signature – see Figure 9),

Irons does not specifically teach performing a service on the image of the scanned form. Xerox teaches

DataGlyphs, which can encode and read machine readable information (including executable commands)

applied to office forms, using SmartPaper Controls. SmartPaper can perform the service of electronically

verifying whether a form has been signed (Xerox page 2 section "Signature regions"). Since multiple

signatures are typically applied on said invoice at different times (i.e. supervisors and sales people in

different buildings – see also Irons Figure 9) , the DataGlyphs are updated accordingly, and can be

incorporated into Irons Figure 9 invoice (i.e. the machine readable code in the upper right, as well as

verifying the presence of the two signatures on said invoice). Since retail/wholesale invoices typically

involve signatures, a typical service can be verifying presence signatures on a scanned form. In the past,

this was accomplished via visual inspection, however, Xerox can perform this "service" electronically to

verify a scanned invoice.

Applicant argues on page 4 of the Request that Barton's "routing code" is information that is used

in performing the service itself, and the code itself does not define or describe a service. It is respectfully

noted that, although the service of routing a mail document may be partially pre-defined, the routing code

is a necessary part of the process. Since said code is required for the service to be executed, said code acts

to define and describe said service by defining where to route said mail.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set

forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from

the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing

date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action

is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX

MONTHS from the mailing date of this final action.

10.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to William Bashore whose telephone number is **(703) 308-5807.** The examiner can

normally be reached on Monday through Friday from 11:30 AM to 8:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Heather Herndon, can be reached on **(703) 308-5186.**

Any inquiry of a general nature or relating to the status of this application should be directed to

the Group receptionist whose telephone number is **(703) 305-3900.**

11.   **Any response to this action should be mailed to:**

        Commissioner of Patents and Trademarks
        Washington, D.C. 20231

    or faxed to:

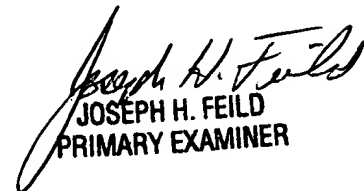   **(703) 746-7239** (for formal communications intended for entry)

or:

        (703) 746-7240 (for informal or draft communications, please label
        "PROPOSED" or "DRAFT")

or:

        (703) 746-7238 (for after-final communications)

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Fourth Floor (Receptionist).**

William L. Bashore
June 25, 2003

JOSEPH H. FEILD
PRIMARY EXAMINER